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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,512	12/18/2001	Jamal Seyed-Yagoobi	W-W Case 51	4597

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EXAMINER

LEO, LEONARD R

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/023,512

Applicant(s)

SEYED-YAGOOBI ET AL.

Examiner

Leonard R. Leo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 4-10, 12, 15, 19-22, 27-33, 35, 38, 42-45 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 11, 13, 14, 16-18, 24-26, 34, 36, 37, 39-41, 47 and 48 is/are rejected.
- 7) ☒ Claim(s) 23 and 46 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Election/Restrictions*

Applicant's election without traverse of the species of Figure 7C and sub-species of Figure 6B in Paper No. 6 is acknowledged.

Claims 4-10, 12, 15, 19-22, 27-33, 35, 38, 42-45 and 49 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species and sub-species, there being no allowable generic or linking claim.

Regarding claims 4-5 and 27-28, the elected species of Figure 7C disclosing helical electrical conductors does not read on "said [longitudinal] direction [of said heat transfer member] is perpendicular to a longitudinal axis of said electrical conductors." Claims 4-5 and 27-28 read on the nonelected species of Figure 8C.

Regarding claims 12 and 35, the elected sub-species of Figure 6B disclosing the first surface alteration as a recess 27 does not read on "said first surface alteration includes a thin and flat electrically insulative layer." Claims 12 and 35 read on the nonelected sub-species of Figure 6A.

### *Claim Objections*

Claim 1 is objected to because of the following informalities: the recitation of "hereby" in line 24 should read -- thereby --. Appropriate correction is required.

Claim 25 is objected to because of the following informalities: the recitation of "hereby" in line 25 should read -- thereby --. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 48 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim recites "at least one" heat transfer member in line 2 and "plural" heat transfer members in lines 8-9. The claim is indefinite when only "one" heat transfer member is read.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 11, 13-14, 24-26, 34, 36-37 and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seyed-Yagoobi et al in view of Itoh et al.

Seyed-Yagoobi et al discloses all the claimed limitations except surface alterations.

Itoh et al discloses an EHD pumping device comprising an AC voltage source 9 and a cylindrical transfer member 4 (column 5, line 64 to column 6, line 8) with electrical conductor 1 disposed in a recess and coplanar to the transfer member outer surface (Figure 8) for the purpose of minimizing obstruction with the motive particles along the transfer member surface.

Since Seyed-Yagoobi et al and Itoh et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Itoh et al would have been recognized in the pertinent art of Seyed-Yagoobi et al.

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It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Seyed-Yagoobi et al the electrical conductor disposed in a recess and coplanar to the transfer member outer surface for the purpose of minimizing obstruction with the motive particles along the transfer member surface as recognized by Itoh et al.

Regarding claims 13-14, Itoh et al discloses the electrical conductor (i.e. insulated in Seyed-Yagoobi et al) may be any shape, i.e. rectangle or square (column 6, lines 26-30). In the combination, the insulated electrical conductor would be recessed and coplanar with the outer surface of the transfer member.

Regarding claim 24, Figure 1 of Seyed-Yagoobi et al discloses plural heat transfer members 18.

Regarding claims 36-37, the claims are rejected as applied to claims 13-14 above.

Regarding claims 47 and 48, the claims are met by the combination of references, since the scope is broader than claims 1 and 24, respectively.

Claims 16-18 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seyed-Yagoobi et al in view of Itoh et al as applied to claims 1-3, 11, 13-14, 24-26, 34, 36-37 and 47-48 above, and further in view of Knight.

The combined teachings of Seyed-Yagoobi et al and Itoh et al lacks plural groups of electrical conductors.

Knight discloses an EHD pumping device comprising an AC voltage source 24 and a cylindrical transfer member 12 and a plurality of electrical conductors 40 disposed in plural groups 36 spaced along the transfer member for the purpose of providing pulsatile flow.

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Since Seyed-Yagoobi et al and Knight are both from the same field of endeavor and/or analogous art, the purpose disclosed by Knight would have been recognized in the pertinent art of Seyed-Yagoobi et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Seyed-Yagoobi et al plural groups of electrical conductors spaced along the transfer member for the purpose of providing pulsatile flow as recognized by Knight.

***Allowable Subject Matter***

Claims 23 and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant is reminded of his duty to disclose under 37 CFR § 1.56, which states in part:

***Duty to disclose information material to patentability.***

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned.

In this respect, the Examiner requests all publications, not of record in this application, associated with the commonly invented U.S. Patent No. 6,409,975.

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Any inquiry of a general nature, relating to the status of this application or clerical nature (i.e. missing or incomplete references, missing or incomplete Office actions or forms) should be directed to the Technology Center 3700 Customer Service whose telephone number is (703) 306-5648. Status of the application may also be obtained from the Internet: <http://pair.uspto.gov/cgi-bin/final/home.pl>

Any inquiry concerning this Office action should be directed to Leonard R. Leo whose telephone number is (703) 308-2611.

A handwritten signature in cursive script that reads "Leonard R. Leo".

LEONARD R. LEO  
PRIMARY EXAMINER  
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October 19, 2003